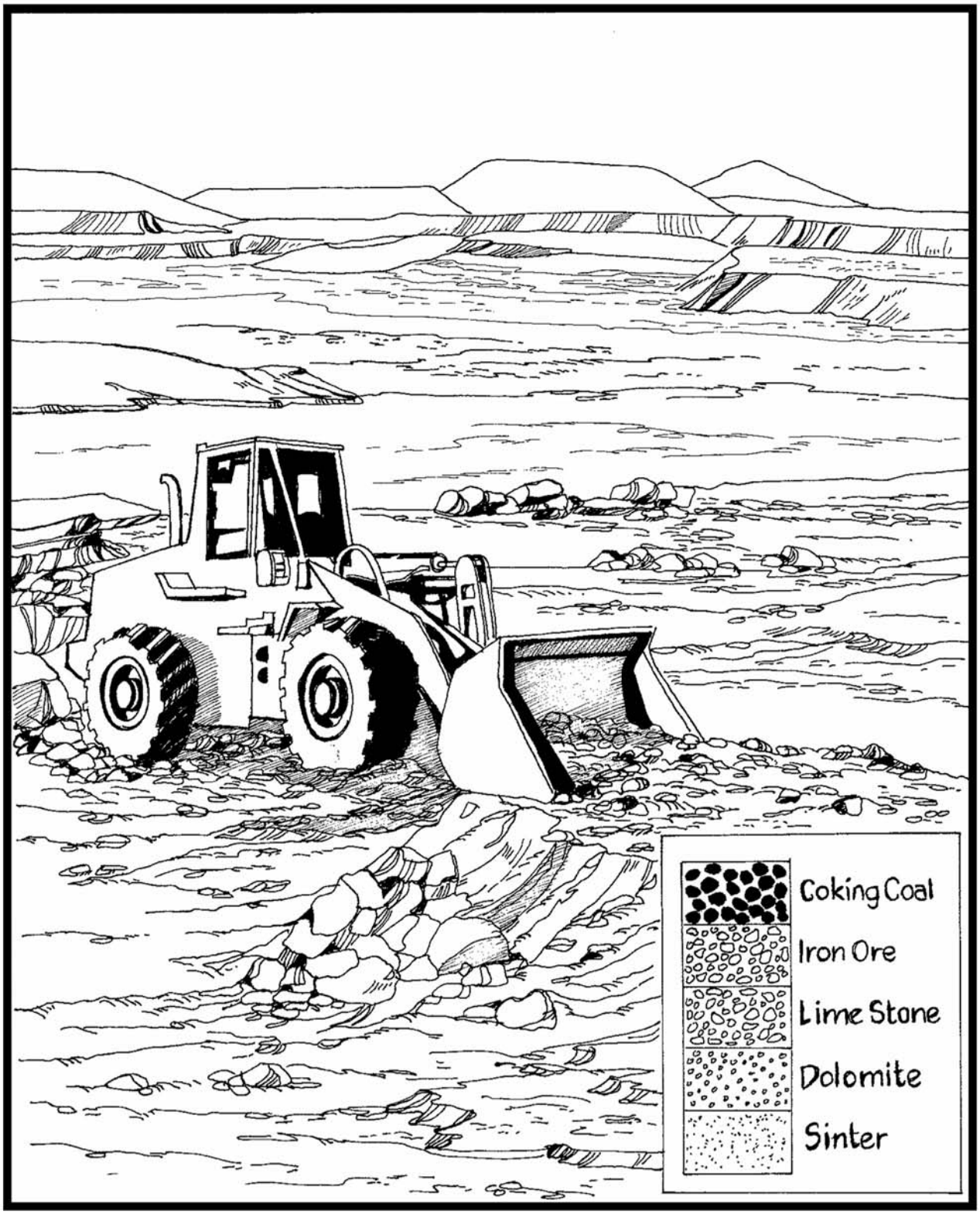
Steel cans-Take



STEEL CANS - TAKE

LEARNING AREA: Technology

LEARNING OUTCOME 1: Technological processes and skills
Apply technological processes and skills ethically and responsibly using appropriate information and communication technologies
LEARNING OUTCOME 3: Technology, society and the environment
Demonstrate an understanding of the interrelationships between science, technology, society and the environment

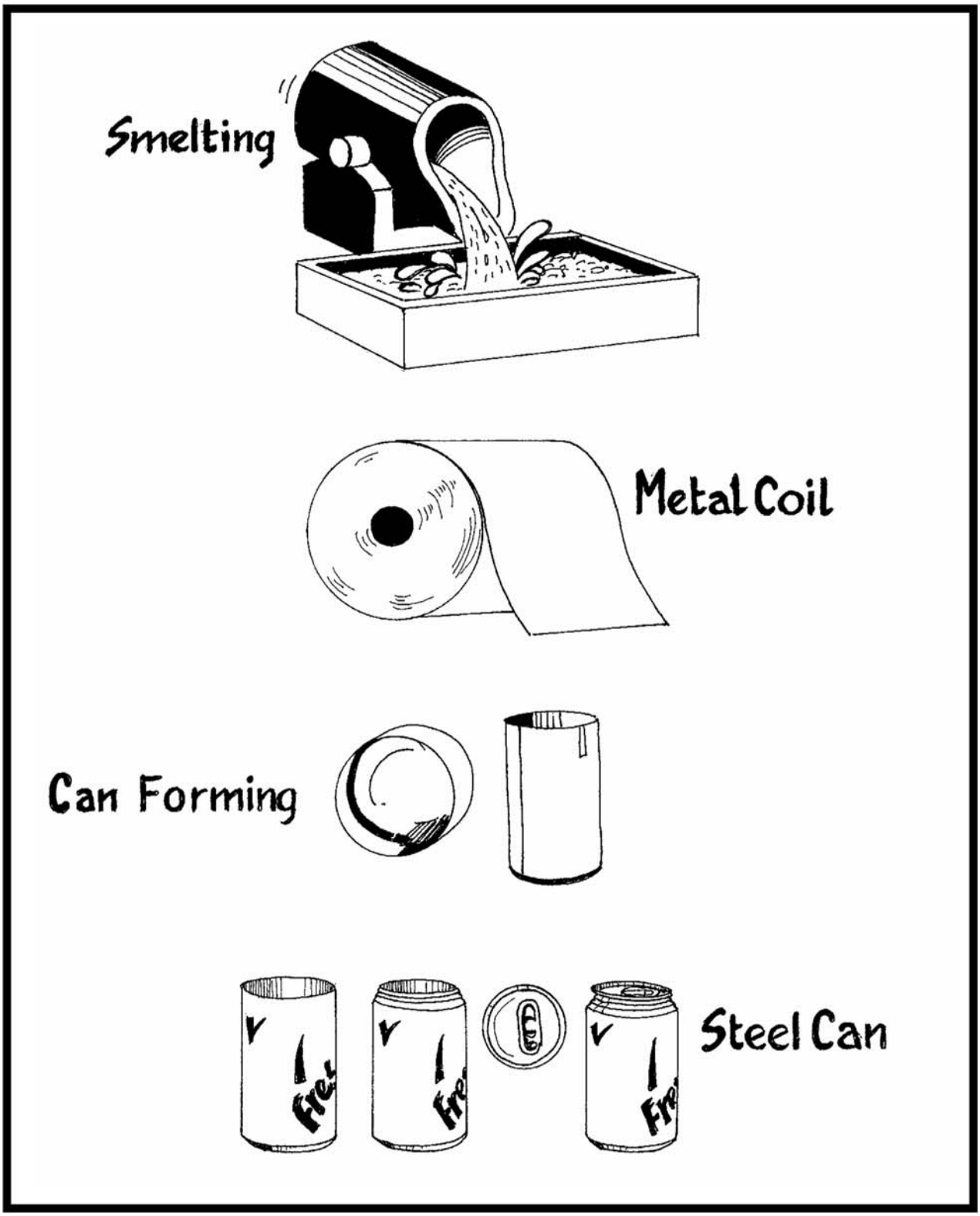
Integrate with other Learning Areas:

Learning Area	Learning Outcome	Description
Language	4: Writing	Write different kinds of factual and imaginative texts for a wide range of purposes
Mathematics	1: Numbers, operations and relationships	Recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems

ACTIVITIES
(E = Educator L = Learner)

	How steel is made
E	Explain - Cans are made from steel or aluminium.
L	Write to **ArcelorMittal** to find out : ● how steel is made ● where the steel factories are in South Africa ● what raw materials it is made from ● where these raw materials are found in South Africa ● whether steel is exported to other countries and from which ports
E	Send the best letter.
	Mapping
L	Draw up a list of all the steel factories and places where the raw materials are mined in South Africa.
L	Find the towns or nearest towns in an atlas.
L	Calculate the kilometres between each mine and the closest steel factory.
L	Calculate the kilometres between each steel factory and its closest port.

Steel cans-Make



STEEL CANS - MAKE

LEARNING AREA: Natural Sciences

LEARNING OUTCOME 1: Scientific investigations
Act confidently on curiosity about natural phenomena, and investigate relationships and solve problems in scientific, technological and environmental contexts
LEARNING OUTCOME 3: Science, society and the environment
Demonstrate an understanding of the interrelationships between science and technology, society and the environment.

Integrate with other Learning Areas:

Learning Area	Learning Outcome	Description
Technology	1: Technological processes and skills.	Apply technological processes and skills ethically and responsibly using appropriate information and communication technologies
Technology	3: Technology, society and the environment	Demonstrate an understanding of the interrelationships between science, technology, society and the environment
Language	4: Writing	Write different kinds of factual and imaginative texts for a wide range of purposes

ACTIVITIES
(E = Educator L = Learner)

	Magnetism
E	Explain magnetism.
L	Collect a large variety of different types and sizes of cans and tins. Use a magnet to sort into two piles. Steel cans are attracted to a magnet. Aluminium cans are not.
L	Sort beverage cans from each pile. Look for other differences between steel and aluminium cans.
	Rust
L	Use cans collected for previous activity. Label each as steel or aluminium. Scrape the decorative paint off the outside of the cans with a nail to expose the metal. Place the scraped cans in a plastic container of salty water for approximately 2 days.
L	Observe which cans rust and which do not.
E	Explain what happens when a metal rusts. Discuss: The need for metal containers that do not rust.
	What cans are used for
L	Brainstorm in groups. Trace a can of beans (contents and can) back to its source.
L	Draw a flow diagram showing the journey from farm to table (vegetable) and from mine to table (can) of the can of beans.

Steel cans-Buy

STEEL CANS - BUY

LEARNING AREA: Economic and Management Sciences

LEARNING OUTCOME 1: The Economic Cycle
Demonstrate knowledge and understanding of the economic cycle within the context of 'the economic problem'.
LEARNING OUTCOME 2: Sustainable Growth and Development
Demonstrate understanding of sustainable growth, reconstruction, and development, and to reflect critically on related processes.

Integrate with other Learning Areas:

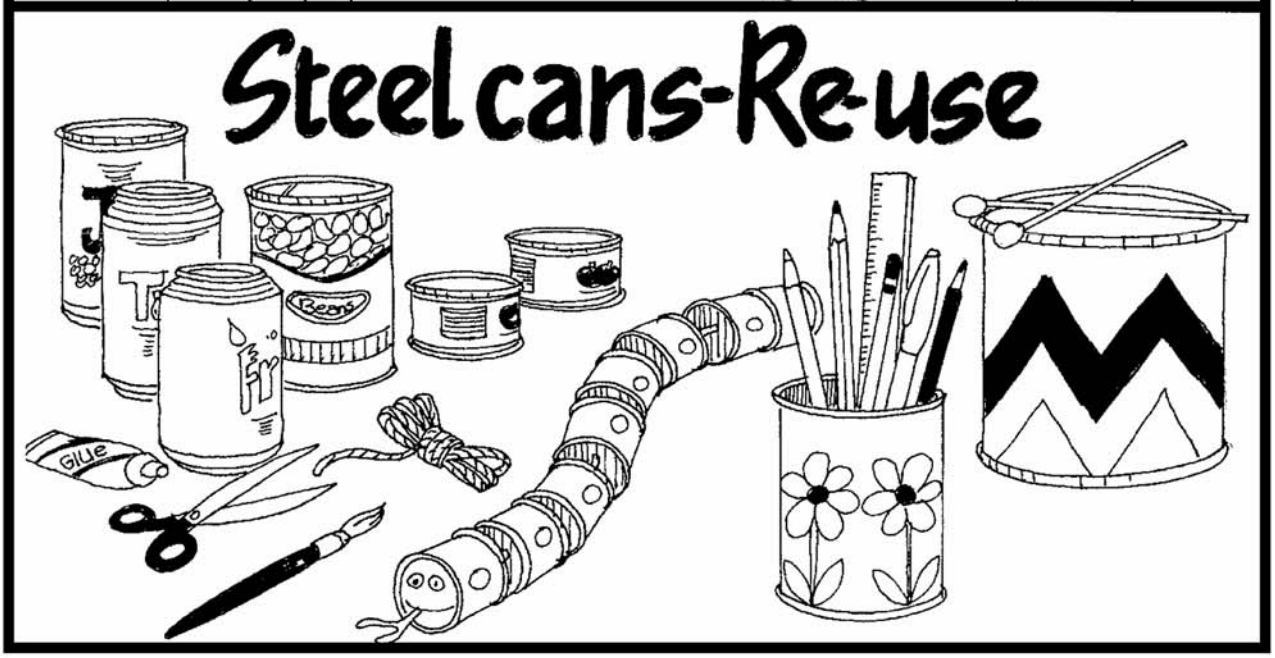
Learning Area	Learning Outcome	Description
Technology	3: Technology, society and the environment	Demonstrate an understanding of the interrelationships between science, technology, society and the environment
Arts & Culture	1: Creating, interpreting and presenting	Create, interpret and present work in each of the art forms

ACTIVITIES
(E = Educator L = Learner)

	Products sold in steel cans
L	Collect pictures or draw all the different kinds of things that are sold in steel cans.
L	Make 3 different collages: one for beverage and food cans, one for aerosol cans and one for paint and oil cans.
	Sale of steel cans
L	List all the different types of shops that sell products in cans e.g. supermarkets, chemists, hardware, petrol stations.
L	Draw a scene showing a typical business area in a town. Include each type of shop and show the items on display.
L	Find out which type of shop sells the greatest variety of items in cans.
	Aerosol cans
L	Collect some aerosol cans
L	Write to the Aerosol Manufacturers' Association for information on how aerosols work.
E	Post the best letter.
L	Use this information: ● to draw a diagram of the inside of the aerosol can showing how much is useful product and how much is propellant ● to explain what "ozone friendly" means
L	Using the aerosol cans collected, look to see which of them have "ozone friendly" labels.

Steel cans-Use

Steel cans-Re-use



STEEL CANS - USE AND RE-USE

LEARNING AREA: Social Sciences

LEARNING OUTCOME 3: Exploring Issues
Make informed decisions about social and environmental issues and problems.

Integrate with other Learning Areas:

Learning Area	Learning Outcome	Description
Natural sciences	1: Scientific investigation	Act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.
Life Orientation	2: Social development	Demonstrate an understanding of and commitment to constitutional rights and responsibilities, and to show an understanding of diverse cultures and religions.
Life Orientation	3: Personal development	Use acquired life skills to achieve and extend personal potential to respond effectively to challenges in his or her world.

ACTIVITIES
(E = Educator L = Learner)

	Labels on food cans
L	Collect a supply of food cans with labels.
L	Make a list of all the different types of information you find on a food can label. Start with the brand name and product name and include weight, ingredients, serving suggestions. etc.
L	Write a B next to each item of information that is important when you buy it. Write a U next to each item of information that is important when you use it.
L	Study each of the food can labels. Write in the brand name and product name.
L	Make a tick on your list next to each type of information you find.
	Discuss: Whether each item of information is important and why.
	Can opening
L	Sort your collection of cans into those that have a built-in can opener, e.g. beverage, sardine, and those that don't.
L	List the advantages and disadvantages of a built-in can opener.
	Re-use of cans
E	Contact a pre-school in your area and show them how beverage cans can be used as a teaching aid - to teach colour sorting and matching, counting, matching letters and numbers.
E	Set up a collection scheme in your class.
L	Bring in cans.
E	Deliver them to the pre-school.